

nn

```
int xspacing = 13;
```

```
int w;
```

```
float a = 0;
```

```
float theta = 0;
```

```
float amplitude = 50.0;
```

```
float period = 100.0;
```

```
float dx;
```

```
float[] yvalues;
```

```
boolean fadeout = true;
```

```
float s = 7.5;
```

```
void setup() {
```

```
  size(1000,500);
```

```
  w = width+13;
```

```
  dx = (TWO_PI/period)*16*xspacing;
```

```
  yvalues = new float[w/xspacing];
```

```
  frameRate(20);
```

```
}
```

```
void draw() {
```

```
  if(fadeout == true) {
```

```
    noStroke();
```

```
    fill(0);
```

```
    rect(0,0,width*5,height*5);
```

```
}
```

```
  if(fadeout == false){
```

```
    background(255);
```

```
}
```

```
  calcWave();
```

```
  renderWave();
```

```
}
```

```
void calcWave() {
```

```
theta += 0.1;
```

```
float x = theta + map(sin(a), tan(-1), 1, 20, width -20);
```

```
float y = theta /+map(cos(a), -1, 100.0, 20, height -20);
```

```
for (int i = 0; i < yvalues.length; i++) {
```

```
  yvalues[i] = sin(x)*amplitude+cos(y)*amplitude;
```

```
  x+=dx;
```

```
  y+=-dx;
```

```
}
```

```
}
```

```
void renderWave() {
```

```
//pushMatrix();
```

```
for (int x = 0; x < yvalues.length; x++) {
```

```
  for (int y = 0; y < yvalues.length; y+=2) {
```

```
noStroke();
```

```
//start ----
```

```
fill(8*xspacing-y+height/130+yvalues[x],54,153);
```

```
ellipse(x*xspacing, -y+height/130+yvalues[x], s, s);
```

```
//1 --
```

```
fill(25,45*xspacing-y+height/50+yvalues[x],0,5*xspacing-y/2*yvalues[x]);
```

```
ellipse(x*xspacing, -y+height/6+yvalues[x], s, s);
```

```
// 2 --
```

```
fill(255,45,0,5*xspacing-y/2*yvalues[x]);
```

```
ellipse(x*xspacing, -y+height/3+yvalues[x], s, s);
```

```
// 3 --
```

```
fill(125,168,255,xspacing-y/yvalues[x]);
```

```
ellipse(x*xspacing, -y+height/2+yvalues[x], s, s);
```

```

// 4 --
fill(316,xspacing-y+height/1+yvalues[x],100,5*xspacing-y*2*yvalues[x]);
ellipse(x*xspacing, -y+height/1.5+yvalues[x], s, s);
// 5 --
fill(252,xspacing-y+height/45+yvalues[x],150,xspacing-y*yvalues[x]);
ellipse(x*xspacing, -y+height/1.2+yvalues[x], s, s);
// 6 --
fill(163,50*xspacing-y/yvalues[x],8879,xspacing-y*yvalues[x]);
ellipse(x*xspacing, -y+height/1+yvalues[x], s, s);
// end ---
fill(168*xspacing-y-height/130+yvalues[x],89,86);
ellipse(x*xspacing, -y+height/0.85+yvalues[x], s, s);

// neon effect --

fill(255,255,255,random(255));
ellipse(x*xspacing, -y+height/2+yvalues[x], random(s), random(s));
//ellipse(x*xspacing, y+height/1.2+yvalues[x], s, s);
//ellipse(x*xspacing,y+10*height/300*yvalues[y],2, 2);

//float angleRange = x*y;
//float angle = radians(random(-angleRange, angleRange));

//translate(mouseX,width/2,50);
//shapeMode(CENTER);
//rotate(mouseX);

}
}
//popMatrix();
}

```